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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,541	10/21/2003	Yasushi Fujimoto	061069-0306016	9317
909	7590	09/15/2005	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			BUI-PHO, PASCAL M	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2878	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/689,541

Applicant(s)

FUJIMOTO ET AL.

Examiner

Pascal M. Bui-Pho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on April 13, 2000. It is noted, however, that applicant has not filed a certified copy of the JAPAN 2000-112388 application as required by 35 U.S.C. 119(b).

***Drawings***

2. The drawings were received on January 30, 2004. These drawings are not accepted. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "S2, S3, S4, S5, S6, S7, S8, S9, and S10" have been used to designate different steps in Figures 19, 20, 23, 27, 29, and 31. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 20, S8 and S9, Figure 27, S10, Figure 51, STOP. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference

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character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 2, and 11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 28, 29, 31, 35, 36, and 37 of U.S. Patent No. 6,649,893. Although the conflicting claims are not identical, they are not patentably distinct from each other because the current application is a mere broader version of the claimed invention of the above-mentioned U.S. Patent.

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With regards to claims 3-6, and 9, selecting particular optics elements for performing similar optical functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art to include such components in order to provide more control to the modulation of light beams.

With regards to claims 7 and 10, selecting a specific or particular structure and/or type of a light source in order to provide a long lasting life of the light source would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art to include such structure in order to provide easier maintenance performance for the microscope.

With regards to claim 8, selecting a particular optic element for performing similar optical functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art to include such element in order to provide a desired selection of the optics component for the microscope.

With regards to claims 12 and 13, selecting a particular location for optics elements for performing similar optical functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art to choose such placement in order to provide a better optics design.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 1, 2, 11, and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Abe (US 5,892,622).

With regards to claim 1, Abe discloses an automatic focusing apparatus comprising light sources (10,16); a partially light-introducing member (12, 13, 18) that causes only a part of light beams from the light sources to enter the microscope; a light-condensing optical system (2, 19) that condenses light beams reflected from a sample surface of the microscope; a photodetector (23) disposed at a light convergence position of the light-condensing optical system (Figures 4A-C and Columns 3-5) and having at least two light-receiving sections (PA, PB), the photodetector disposed on an exit side of the light-condensing optical system; and a multi-beam producing member (2, 19, 20) disposed in a path of light from the microscope to the photodetector and letting a plurality of light beams emerge, the plurality of light beams being received by the photodetector. (see Fig. 2).

With regards to claim 2, Abe discloses an automatic focusing apparatus wherein the partially light-introducing member is a light-intercepting member that intercepts a beam light from the light source (Fig. 2 and Columns 4-6).

With regards to claim 11, Abe discloses an automatic focusing apparatus comprising a beam-splitting member (20) having a surface from which or through which an incident light beam is reflected or transmitted and is disposed at an intersection of an optical axis of a first path of light and an optical axis of a second path of light; a light source (16) disposed in the first path of light; a multi-beam producing member (2,17, 19, 20) disposed between the light source and a sample, to cause a plurality of light beams to emerge therefrom; a light-condensing optical system (19) disposed in the second path of

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light on an exit side of the beam-splitting member, to condense the plurality of light beams passing the beam-splitting member; a photodetector (23) disposed in the second path of light at a light convergence position of the light-condensing optical system and provided with at least two light-receiving sections (PA, PB), the photodetector being disposed on an exit side of the light-condensing optical system; and a light-intercepting member (17, 18) disposed between the light source and the photodetector, to intercept a part of light beams passing there.

With regards to claim 13, Abe discloses an automatic focusing apparatus wherein the multi-beam producing member (2, 19, 20) is disposed between the beam-splitting member (18) and an objective lens (2) of the microscope.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (US 5,892,622).

With regards to claims 3 and 5, Abe lacks an inclusion of a first crystal plate for the multi-beam producing member and wherein a second crystal plate is disposed on an exit side of a quarter-wave plate. Selecting a particular optics element for performing similar optical functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to provide a desired selection

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of the optics component for the microscope. The further inclusion of a second crystal plate disposed on an exit side of a quarter-wave plate would have been obvious for similar reasons set forth above.

With regards to claim 4, Abe lacks an inclusion of a quarter-wave plate disposed on an exit side of the first crystal plate. Selecting a particular optics element for performing similar optical functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to provide more control to the modulation of light beams.

With regards to claims 6 and 9, Abe fails to further disclose a diffuser disposed on an exit side of the light source, to diffuse rays from the light source. The use of a diffuser for providing a desired distribution of light in an optical system would have been obvious to one of ordinary skill in the optics art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S patent accordingly in order to widen the angle of the modulated light beam.

With regards to claims 7 and 10, Abe fails to specify whether or not the light source is constructed as a surface-illuminant laser diode having a plurality of radiant points so that arrangement of the multi-beam producing member is dispensable. Selecting a specific or particular structure and/or type of a light source in order to provide a long lasting life of the light source would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent to provide easier maintenance



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performance for the microscope. The further inclusion of a specific partially light introducing member would have also been obvious for similar reasons set forth above.

With regards to claim 8, Abe lacks an inclusion of at least one diffraction grating and a crystal plate as the multi-beam producing member. Selecting particular optics elements for performing similar optical functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S patent accordingly in order to provide a desired selection of the optics component for the microscope.

With regards to claim 12, Abe fails to disclose the use of the light-intercepting member disposed between the beam-splitting member and the light-condensing optical system. Selecting particular locations for optics elements for performing similar optical functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to provide a better optics design of the microscope.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pascal M. Bui-Pho whose telephone number is (571) 272-2714. The examiner can normally be reached on Monday through Friday: 8:30 a.m. to 5:00 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pascal M. Bui-Pho  
Examiner  
Art Unit 2878

pmb



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